



APPROACHING THE SCENE OF AN ALTERNATIVE-FUEL VEHICLE CRASH

Law enforcement officers, emergency medical service providers, fire services, and other public safety personnel are often the first to arrive at the scene of a crash to offer assistance. Newer alternative-fueled vehicles present additional hazards when these vehicles are involved in a crash.

The National Highway Traffic Safety Administration (NHTSA) developed *Approaching Alternative-Fueled Vehicle Crashes*, a brochure with safety information to help first responders deal with these new hazards. The brochure describes the key features and emergency approach procedures for five of the most common types of alternative-fueled vehicles.

Liquefied Petroleum Gas (LPG) and Compressed Natural Gas (CNG)

The greatest danger of LPG containers that are exposed to fire or excessive heat is BLEVE (Boiling Liquid-Expanding Vapor Explosion). When LPG fuel containers become compromised or damaged in a crash, the fuel converts from a liquid to a vapor sometimes producing a cloud.

Approaching a vehicle with a LPG or CNG that is leaking fuel or on fire is something that should only be attempted by safety workers who are wearing proper protective clothing and self-contained breathing apparatus, and who are trained to deal with fire or HazMat emergencies. The best advice for a safety worker who does not have this experience is to create a safe zone and contact the proper response units in the area.

LPG or CNG containers are located in the trunk area, under the side panel of a van or school bus,

POWERED BY

Natural Gas...

.....Propane

Methanol....

.....Ethanol

.....

Electric Vehicle

on the frame, or in the bed of a pick up truck. This type of fuel is often used by fleet services such as buses, taxi cabs, or utility companies.

Methanol or Ethanol

Bus fleets are common users of these two types of fuels. Both methanol and ethanol are used in the regular fuel tanks of the vehicle.

A fire fueled by methanol or ethanol burns bright blue and can be difficult to see on a clear day. If the vehicle is not on fire, it can be approached with the same level of care as a traditionally fueled vehicle. If it is on fire, responders with the proper training and equipment should be called.

Electric Vehicles

Electric vehicles are powered by batteries, as high as 300 volts, usually located under the hood, in the trunk, or under the vehicle. They can be identified by an electric charging port on the side of the vehicle, an electric logo, or a distinctive profile.

The toxic fumes and vapors from damaged batteries can be carried in smoke or steam. If smoke is visible after a crash, self-contained breathing apparatus should be used before approaching. Even after voltage has been shut down, the battery pack remains charged. Arcing under the hood indicates that the vehicle should not be approached. The battery pack and traction cables should never be cut.



Because the dangers from fire are more extreme for alternative fuels, cones are a better choice for securing a safety area than flares.

HOW TO ORDER

For a copy of *Approaching Alternative-Fueled Vehicle Crashes*, write to the Office of Traffic Injury Control Programs at NHTSA, NTS-41, 400 Seventh Street, S.W., Washington, DC 20590, or send a fax to (202) 366-7721, or by Internet at <http://www.nhtsa.dot.gov> and then follow directions to Enforcement.

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